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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

25096	7590 02/	13/2004	EXAMINER						
PERKINS COII	ELLP	HO, TU TU V							
P.O. BOX 1247				ART UNIT	PAPER NUMBER				
SEATTLE, WAS	8111-1247		2818						
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APPLICATION NO.	FILING DAT	E FIRST NAME	ED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
09/944,246	08/30/200	Setho.	Setho-Sing Fee		1798				
TITLE OF INVENTION: PACKAGED MICROELECTRONIC DEVICES AND METHODS OF FORMING SAME									
TITLE OF INVENTION:	PACKAGED MICR	OELECTRONIC DEVICES AND MET	-	108298630US	1776				
TITLE OF INVENTION:	PACKAGED MICR	OELECTRONIC DEVICES AND MET	-	1002/303003	1776				
TITLE OF INVENTION:	PACKAGED MICR	OELECTRONIC DEVICES AND MET	-	10027803003	1776				
TITLE OF INVENTION:	PACKAGED MICRO		-	TOTAL FEE(S) DUE	DATE DUE				
			HODS OF FORMING SAME						

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATEN <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHT THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPO PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPET 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM TH MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THE STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOV REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (O AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WIL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is n claiming SMALL ENTITY status, check the box below and enclo the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- ☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) w your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with

licable fee(s), to: <u>Mail</u>

Mail Stop ISSUE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

(703) 746-4000 or Fax INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed wh appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" maintenance fee notifications. CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) Note: A certificate of mailing can only be used for domestic mailings of Fee(s) Transmittal. This certificate cannot be used for any other accompany papers. Each additional paper, such as an assignment or formal drawing, m have its own certificate of mailing or transmission. 25096 7590 02/13/2004 PERKINS COIE LLP Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the Un States Postal Service with sufficient postage for first class mail in an envel addressed to the Mail Stop ISSUE FEE address above, or being facsim transmitted to the USPTO, on the date indicated below. PATENT-SEA P.O. BOX 1247 SEATTLE, WA 98111-1247 (Depositor's na (Signat (D APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 09/944 246 08/30/2001 Setho Sing Fee 108298630US 1798 TITLE OF INVENTION: PACKAGED MICROELECTRONIC DEVICES AND METHODS OF FORMING SAME APPLN. TYPE **SMALL ENTITY** ISSUE FEE **PUBLICATION FEE** TOTAL FEE(S) DUE DATE DUE NO nonprovisional \$1330 \$300 \$1630 05/13/2004 EXAMINER ART UNIT CLASS-SUBCLASS HO, TU TU V 2818 257-666000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent Fee Address" indication (or "Fee Address" Indication form attorneys or agents. If no name is listed, no name PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer will be printed. Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual corporation or other private group entity □ governm 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fee(s) is enclosed. ☐ Publication Fee ☐ Payment by credit card. Form PTO-2038 is attached. ☐ Advance Order - # of Copies _ The Director is hereby authorized by charge the required fee(s), or credit any overpayment Deposit Account Number ______ (enclose an extra copy of this form). (enclose an extra copy of this form). Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature)

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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DATE MAILED: 02/13/2004

APPLICATION NO	PLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
09/944,246	(08/30/2001	Setho Sing Fee	108298630US	108298630US 1798		
25096	7590	02/13/2004		EXAM	EXAMINER		
PERKINS COIE LLP				HO, TU	HO, TU TU V		
PATENT-SEA				ART UNIT	PAPER NUMBER		
P.O. BOX 1247 SEATTLE, WA 98111-1247				2818			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after t mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a ha months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date th determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retriev (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No		Applicant(s)	
	09/944,246		FEE ET AL.	
Notice of Allowability	Examiner		Art Unit	
į	Tu-Tu Ho		2818	AW
The MAILING DATE of this communication apperation apperation apperation apperation apperation (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIST of the Office or upon petition by the applicant. See 37 CFR 1.313 1. This communication is responsive to RCE filed 08 December 1. The allowed claim(s) is/are 1-9,11-23,32-35,39,40 and 43-35. The drawings filed on 11 March 2003 are accepted by the 1. Acknowledgment is made of a claim for foreign priority und 1. Certified copies of the priority documents have 1. Certified copies of the priority documents have 1. Copies of the certified copies of the priority documents have 1. Copies of the certified copies of the priority documents have 1. Certified copies not received: 5. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 6. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 7. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 8. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not received: 9. Acknowledgment is made of a claim for domestic priority und 1. Certified copies not	(OR REMAINS) (Or other appropriate of the appropria	r sheet with the cor. CLOSED in this appliate communication with the communication with the communication with the communication with the communication is subject to with the communication with the communic	cation. If not included vill be mailed in due continued i	d ourse. THIS at the initiative
Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of 7. A SUBSTITUTE OATH OR DECLARATION must be submin INFORMAL PATENT APPLICATION (PTO-152) which gives reason.	this application. nitted. Note the at	THIS THREE-MONT tached EXAMINER'S	TH PERIOD IS NOT E AMENDMENT or NO	EXTENDABLE.
 8. CORRECTED DRAWINGS must be submitted. (a) including changes required by the Notice of Draftsper 1) hereto or 2) to Paper No (b) including changes required by the proposed drawing (c) including changes required by the attached Examiner Identifying indicia such as the application number (see 37 CFR 1 each sheet. 9. DEPOSIT OF and/or INFORMATION about the deport attached Examiner's comment regarding REQUIREMENT FOR T 	correction filed 's Amendment / 0 1.84(c)) should be very	, which has been comment or in the Of written on the drawing CAL MATERIAL ma	en approved by the Exifice action of Paper N Is In the front (not the I ust be submitted. N	lo
Attachment(s) 1⊠ Notice of References Cited (PTO-892) 3□ Notice of Draftperson's Patent Drawing Review (PTO-948) 5⊠ Information Disclosure Statements (PTO-1449), Paper No. 2 7□ Examiner's Comment Regarding Requirement for Deposit of Biological Material	2[4[<u>85</u> . 6[8]	☐ Notice of Informal☐ Interview Summar☐ Examiner's Amend Examiner's Staten☐ Other☐ Saminer	Patent Application (Pry (PTO-413), Paper N	No

U.S. Patent and Trademark Office PTOL-37 (Rev. 04-03 Application/Control Number: 09/944,246

Art Unit: 2818

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 08 December 2003 has been entered.

Allowable Subject Matter

2. Claims 1-9, 11, 39-40, 12-23, 32-35, and 43-45 (to be renumbered 1-31) are allowable over the prior art of record.

The examiner's statement of reasons for allowance was indicated in the office action mailed 17 April 2003.

Conclusion

- 3. Two references, result of an update search, made of record but not relied upon, are considered pertinent to applicant's disclosure. Copies of the references are not being furnished with this Office Action per MPEP § 707.05(a).
- a) U.S. Patent 6,516,516 to Lee and assigned to Hyundai Electronics Industries Co. discloses a semiconductor stackable chip package having clip-type, C-shaped outleads wherein

Application/Control Number: 09/944,246

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the outer portion of each lead is in contact with top, side and bottom surface portions of the

Page 3

package body.

b) U.S. Patent 6,518,659 to Glenn and assigned to Amkor Technology, Inc.

discloses a semiconductor stackable chip package having clip-type, C-shaped outleads wherein

the outer portion of each lead is in contact with top, side and bottom surface portions of the

package body, and wherein an upper surface of the body has a protruding key formed of an

encapsulant material and a bottom surface of the body has a key hole.

4. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tu-Tu Ho whose telephone number is (571) 272-1778. The

examiner can normally be reached on 6:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, DAVID NELMS can be reached on (571) 272-1787. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9306 for regular

communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 308-1782.

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Tu-Tu Ho

February 12, 2004

Supervisory Patent Examiner

Technology Center 2800